Amendments to the Claims:

Please amend claims 107, 109, 117, 119-122, 126, 128, 129, 158, 160, 164 as indicated below. This listing of claims will replace all prior versions and listing of claims in the application:

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107. (currently amended) A composite core for an electrical cable comprising:
an inner core comprising a plurality of substantially continuous reinforcing fibers of at least a first type, the first fiber type having a tensile strength that exceeds the tensile strength of glass fibers and an outer core comprising a plurality of substantially continuous reinforcing fibers of at least a second type, the second fiber type having a tensile strength of or similar to glass fibers; a resin matrix, wherein the fibers of the inner and the outer cores are embedded therein; wherein, the fibers of the inner core are different from the fibers of the outer core, and wherein the fibers of the inner and the outer cores are oriented substantially parallel to the longitudinal axis; and ~~a composite core~~

~~as claimed in claim 103~~ wherein the composite material of the inner and outer core is selected to meet physical characteristics including a tensile strength of at least 160 Ksi (1103 MPa), a modulus of elasticity in the range of at least about 7 Msi (48 GPa) to about 30 Msi (206 GPa), an operating temperature in the range of about 90 to about 230°C and a thermal expansion coefficient at least in the range of about 0 to about 6 x 10^{-6} m/m/°C.

108. (cancelled)

109. (currently amended) A composite core for an electrical cable comprising:
an inner core comprising a plurality of substantially continuous reinforcing fibers of at least a first type, the first fiber type having a tensile strength that exceeds the tensile strength of glass fibers and an outer core comprising a plurality of substantially continuous reinforcing fibers of at least a second type, the second fiber type having a tensile strength of or similar to glass fibers; a resin matrix, wherein the fibers of the inner and the outer cores are embedded in therein; wherein, the fibers of the inner core are different from the fibers of the outer core, and wherein the fibers of the inner and the outer cores are oriented substantially parallel to the longitudinal axis; ~~a composite core and as claimed in claim 103 comprising a~~ wherein the fiber/resin ratio of the composite core is at least about 62% by weight.

110. (cancelled)

111. (cancelled)

112. (cancelled)

113. (cancelled)

114. (cancelled)

115. (cancelled)

116. (cancelled)

117. (currently amended) A composite core for an electrical cable comprising:
a plurality of reinforcing fibers of two or more types in a thermosetting resin matrix to form the core, said core having at least 50% fiber volume fraction, the plurality of reinforcing fibers consisting of two or more different types of fibers, a first fiber type

having a modulus of elasticity in the range of about 22(151 GPa) to 37 Msi (255 GPa) and a tensile strength at least about 350 Ksi (2413 MPa) and a second fiber type having a modulus of elasticity in the range of about 6 Msi to about 11.2 Msi and a tensile strength of at least about 180 Ksi (1241 MPa) wherein, the fibers are arranged within the resin matrix having the higher tensile strength fibers in the center of the core; ~~a composite core as claimed in claim 111~~ and wherein the proportion and types of fibers are selected to meet physical characteristics in the end composite core including a tensile strength in the range of at least 160 Ksi (1103 MPa), a modulus of elasticity in the range of at least about 7(48 GPa) to about 30 Msi (206 GPa), an operating temperature in the range of about 90 to about 230°C and a thermal expansion coefficient at least in the range of about 0 to about 6 x 10^{-9} m/m/ °C.

118. (cancelled)

119. (currently amended) A composite core for an electrical cable comprising:
a plurality of reinforcing fibers of two or more types in a thermosetting resin matrix to form the core, said core having at least 50% fiber volume fraction, the plurality of reinforcing fibers consisting of two or more different types of fibers, a first fiber type having a modulus of elasticity in the range of about 22(151 GPa) to 37 Msi (255 GPa) and a tensile strength at least about 350 Ksi (2413 MPa) and a second fiber type having a modulus of elasticity in the range of about 6 Msi to about 11.2 Msi and a tensile strength of at least about 180 Ksi (1241 MPa) wherein, the fibers are arranged within the resin matrix having the higher tensile strength fibers in the center of the core; and wherein the composite core ~~as claimed in claim 114~~ comprises a fiber resin ratio of at least about 62% by weight.

120. (currently amended) A composite core for an electrical cable comprising:
a plurality of reinforcing fibers of two or more types in a thermosetting resin matrix to form the core, said core having at least 50% fiber volume fraction, the plurality of reinforcing fibers consisting of two or more different types of fibers, a first fiber type having a modulus of elasticity in the range of about 22(151 GPa) to 37 Msi (255 GPa) and a tensile strength at least about 350 Ksi (2413 MPa) and a second fiber type having a

modulus of elasticity in the range of about 6 Msi to about 11.2 Msi and a tensile strength of at least about 180 Ksi (1241 MPa) wherein, the fibers are arranged within the resin matrix having the higher tensile strength fibers in the center of the core; and ~~a composite core as claimed in claim 114~~ wherein the first fiber type forms an inner core and the second fiber type forms an outer core that surrounds the inner core.

121. (currently amended) A composite core for an electrical cable comprising;
a plurality of reinforcing fibers of two or more types in a thermosetting resin matrix to form the core, said core having at least 50% fiber volume fraction, the plurality of reinforcing fibers consisting of two or more different types of fibers, a first fiber type having a modulus of elasticity in the range of about 22(151 GPa) to 37 Msi (255 GPa) and a tensile strength at least about 350 Ksi (2413 MPa) and a second fiber type having a modulus of elasticity in the range of about 6 Msi to about 11.2 Msi and a tensile strength of at least about 180 Ksi (1241 MPa) wherein, the fibers are arranged within the resin matrix having the higher tensile strength fibers in the center of the core; and ~~a composite core as claimed in claim [[114]]120~~ wherein the inner core comprises carbon fibers and the outer core comprises glass fibers.

122. (currently amended) A composite core for an electrical cable comprising;
a plurality of reinforcing fibers of two or more types in a thermosetting resin matrix to form the core, said core having at least 50% fiber volume fraction, the plurality of reinforcing fibers consisting of two or more different types of fibers, a first fiber type having a modulus of elasticity in the range of about 22(151 GPa) to 37 Msi (255 GPa) and a tensile strength at least about 350 Ksi (2413 MPa) and a second fiber type having a modulus of elasticity in the range of about 6 Msi to about 11.2 Msi and a tensile strength of at least about 180 Ksi (1241 MPa) wherein, the fibers are arranged within the resin matrix having the higher tensile strength fibers in the center of the core; and ~~a composite core as set forth in claim 114~~ wherein the composite core is segmented.

123. (cancelled)

124. (cancelled)

125. (cancelled)

126. (currently amended) A composite core for an electrical cable comprising; an inner core consisting of a plurality of substantially continuous reinforcing fibers, the fibers having a tensile strength that exceeds the tensile strength of glass fibers an outer core surrounding the inner core consisting at least in part of a plurality of substantially continuous reinforcing glass fibers; and a cured resin matrix, wherein the fibers of the inner and the outer cores are embedded therein; wherein, the fibers of the inner and the outer cores are oriented substantially parallel to the longitudinal axis; ~~a composite core~~ and ~~as claimed in claim 124~~ wherein, the inner core comprises carbon and basalt fibers.

127. (cancelled)

128. (currently amended) A composite core for an electrical cable comprising; an inner core consisting of a plurality of substantially continuous reinforcing fibers, the fibers having a tensile strength that exceeds the tensile strength of glass fibers an outer core surrounding the inner core consisting at least in part of a plurality of substantially continuous reinforcing glass fibers; and a cured resin matrix, wherein the fibers of the inner and the outer cores are embedded therein; wherein, the fibers of the inner and the outer cores are oriented substantially parallel to the longitudinal axis; and wherein the composite core ~~as claimed in claim 124~~ comprises a fiber/resin volume fraction in the range of at least about 50%.

129. (currently amended) A composite core for an electrical cable comprising; an inner core consisting of a plurality of substantially continuous reinforcing fibers, the fibers having a tensile strength that exceeds the tensile strength of glass fibers an outer core surrounding the inner core consisting at least in part of a plurality of substantially continuous reinforcing glass fibers; and a cured resin matrix, wherein the fibers of the inner and the outer cores are embedded therein; wherein, the fibers of the inner and the outer cores are oriented substantially parallel to the longitudinal axis; and wherein the composite core ~~as claimed in claim 124~~ comprises a fiber/resin ratio of at least about 62% by weight;

130. (cancelled)

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157. (cancelled)

158. (currently amended) An electrical cable comprising:

a composite core further comprising:

an inner core comprising a plurality of substantially continuous reinforcing fibers of at least a first type, the first type having a tensile strength that exceeds the tensile strength of

glass fibers, wherein the fibers are substantially parallel to the longitudinal axis; an outer core comprising a plurality of substantially continuous reinforcing fibers of at least a second type, the second type having a tensile strength of or similar to glass fibers, wherein the fibers are substantially parallel to the longitudinal axis at least one longitudinally oriented and substantially continuous reinforced fiber type in a thermosetting resin; and a cured resin matrix, wherein the fibers of the inner and the outer cores are embedded therein; and at least one layer of conductor surrounding said outer core[[;]]; ~~an electrical cable as claimed in claim 154~~ wherein the composite material of the inner core and the outer core is selected to meet physical characteristics in the end composite core including a tensile strength of at least 160 Ksi (1103 MPa), a modulus of elasticity in the range of at least about 7 Msi (48 GPa) to about 30 Msi (206 GPa), an operating temperature in the range of about 90 to about 230°C and a thermal expansion coefficient at least in the range of about 0 to about 6 x 10^{-6} m/m/°C;

159. (cancelled)

160. (currently amended) An electrical cable comprising:

a composite core further comprising:

an inner core comprising a plurality of substantially continuous reinforcing fibers of at least a first type, the first type having a tensile strength that exceeds the tensile strength of glass fibers, wherein the fibers are substantially parallel to the longitudinal axis; an outer core comprising a plurality of substantially continuous reinforcing fibers of at least a second type, the second type having a tensile strength of or similar to glass fibers, wherein the fibers are substantially parallel to the longitudinal axis at least one longitudinally oriented and substantially continuous reinforced fiber type in a thermosetting resin; and a cured resin matrix, wherein the fibers of the inner and the outer cores are embedded therein; and at least one layer of conductor surrounding said outer core[[;]]; ~~an electrical cable as claimed in claim 151~~ and wherein the composite core comprises a fiber/resin ratio of at least about 62% by weight.

161. (cancelled)

162. (cancelled)

163. (cancelled)

164. (previously presented) A method of transmitting electrical power comprising:

using a cable comprising a composite core and at least one layer of aluminum conductor surrounding the composite core, the composite core further comprising:

an inner core comprising a plurality of substantially continuous reinforcing fibers of at least a first type, the first type having a tensile strength that exceeds the tensile strength of glass fibers, wherein the fibers are substantially parallel to the longitudinal axis;

an outer core comprising a plurality of substantially continuous reinforcing fibers of at least a second type, the second type having tensile strength of or similar to glass fibers, wherein the fibers are substantially parallel to the longitudinal axis; and

a cured resin matrix, wherein the fibers of the inner and the outer cores are embedded therein; and transmitting power across the composite cable.

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